

JOHN W. B. SERVICES  
03.10.2009

2009 APR 30 AM 11:05

DE LA CAYE & SONS  
MONTREAL

**ATTACHMENT 1**

APPLICATION TO APPROPRIATE WATER  
Oakdale and South San Joaquin Irrigation Districts  
Diversion of an Additional 700 cfs at Tulloch Dam for Power Production

**ATTACHMENT NO. 1**  
**(Applicant)**

The applicants are the Oakdale Irrigation District and the South San Joaquin Irrigation Districts.

Oakdale Irrigation District  
General Manager Steve Knell  
1205 East F Street  
Oakdale, CA 95361  
Tel. 209-847-0341  
Fax 209-847-3468  
[srknell@oakdaleirrigation.com](mailto:srknell@oakdaleirrigation.com)

South San Joaquin Irrigation District  
General Manager Jeff Shields  
11011 East Highway 120  
Manteca, CA 95336  
Tel. 209-249-4600  
Fax 209-249-4640  
[jshields@ssjid.com](mailto:jshields@ssjid.com)

The assigned agent is:

Tri Dam Project  
General Manager Steve Felte  
P.O. Box 1158  
Pinecrest, CA 95364-0158  
Tel. 209-532-3838 Ext. 5  
Fax 209-965-4235  
[sjf@tridamproject.com](mailto:sjf@tridamproject.com)

# **ATTACHMENT 2**

APPLICATION TO APPROPRIATE WATER  
Oakdale and South San Joaquin Irrigation Districts  
Diversion of an Additional 700 cfs at Tulloch Dam for Power Production

**ATTACHMENT NO. 2**  
**(Project Description)**

This is an application to appropriate additional water for purposes of power generation by the Tri-Dam Project of the Oakdale and South San Joaquin Irrigation Districts at their existing Tulloch facilities on the Stanislaus River. This application is based the planned installation of a third turbine/generator at the existing Tulloch Powerhouse which would take advantage of water that is currently bypassed through Tulloch in excess of the existing power facilities.

EXISTING FACILITIES

Oakdale and South San Joaquin Irrigation Districts jointly own and operate the Tulloch Project on the Stanislaus River (FERC Project No. 2067). The Tulloch Project, originally constructed in the 1950s, is located in Calaveras and Tuolumne Counties and within the Stanislaus National Forest.

The Tulloch Project consists of (1) Tulloch Dam, Spillway Intake and Reservoir, (2) Tulloch Penstock, (3) Tulloch Powerhouse, and (4) Tulloch Switchyard. Oakdale and South San Joaquin already have an appropriative water right license to generate power at the Tulloch Project. License #007860 (A013310), issued in 1953, provides for a direct diversion of not more than 1800 cfs between January 1 and December 31 each year, as well as the right to store 80,000 af between January 1 and December 31 each year.

The existing point of diversion is Tulloch Dam, a concrete gravity dam that is 200 feet high with a crest elevation of 515 feet, a crest width of 12 feet and a crest length of 1600 feet. The dam is located on the Stanislaus River at River Mile 60.2. The Tulloch Intake is located on the north side of the river, and the dimension of its two openings is 114 inches. The Tulloch Penstock is 157 feet long and has an inside diameter of 114 inches. The Tulloch Powerhouse is located at River Mile 60.2 and discharges directly into Goodwin Reservoir, located at River Mile 58.4.

AMOUNT OF WATER REQUESTED AND ITS INTENDED USE

This application is for the ability to divert an additional 700 cfs for purposes of generating power at the Tulloch Project. If approved the Oakdale and South San Joaquin Irrigation District would be able to divert a total of 2500 cfs at Tulloch for power production purposes. The need for the increase is based upon the planned modification of the existing low-level outlet valves to accommodate a third turbine/generator.

The existing unit currently diverts 1800 cfs with an electric generating capacity of 18,000 kW. Flows past Tulloch Dam often exceed this amount, particularly during the



summer irrigation season. (A copy of Figure 3.8-1 from the September 2004 Mitigated Negative Declaration and Initial Study done for the project, showing Mean Monthly Total Flows Through Tulloch Project, 1974-1999, is attached hereto). Currently, excess flows are bypassed through two low level structure bypass valves at the base of Tulloch Dam or through the gated spillway. The existing power producing facilities are hydraulically limited and their flow capacity cannot be increased absent extensive reconstruction.

Studies have shown that the two existing low level bypass valves can be adapted to permit the installation of an additional generation unit. Evaluations show that the potential gain in generation capacity and energy ranges from 5,000 to 11,000 kW, with an expected feasible gain of approximately 7,000 kW, producing 16 gigawatt hours of energy per year at a plant factor of 27 percent.

Tulloch Reservoir acts as an afterbay for New Melones Reservoir, with releases into and out of Tulloch Reservoir controlled by the United States Bureau of Reclamation. Thus, the existing power production facilities, and the proposed installation of a third turbine/generator on one of the existing outlet structures, take advantage of releases required by the United States Bureau of Reclamation from Tulloch Reservoir for irrigation demand and required releases at Goodwin Dam immediately downstream. The installation of the third turbine/generator will therefore not alter or amend the volume or timing of releases from Tulloch Reservoir.

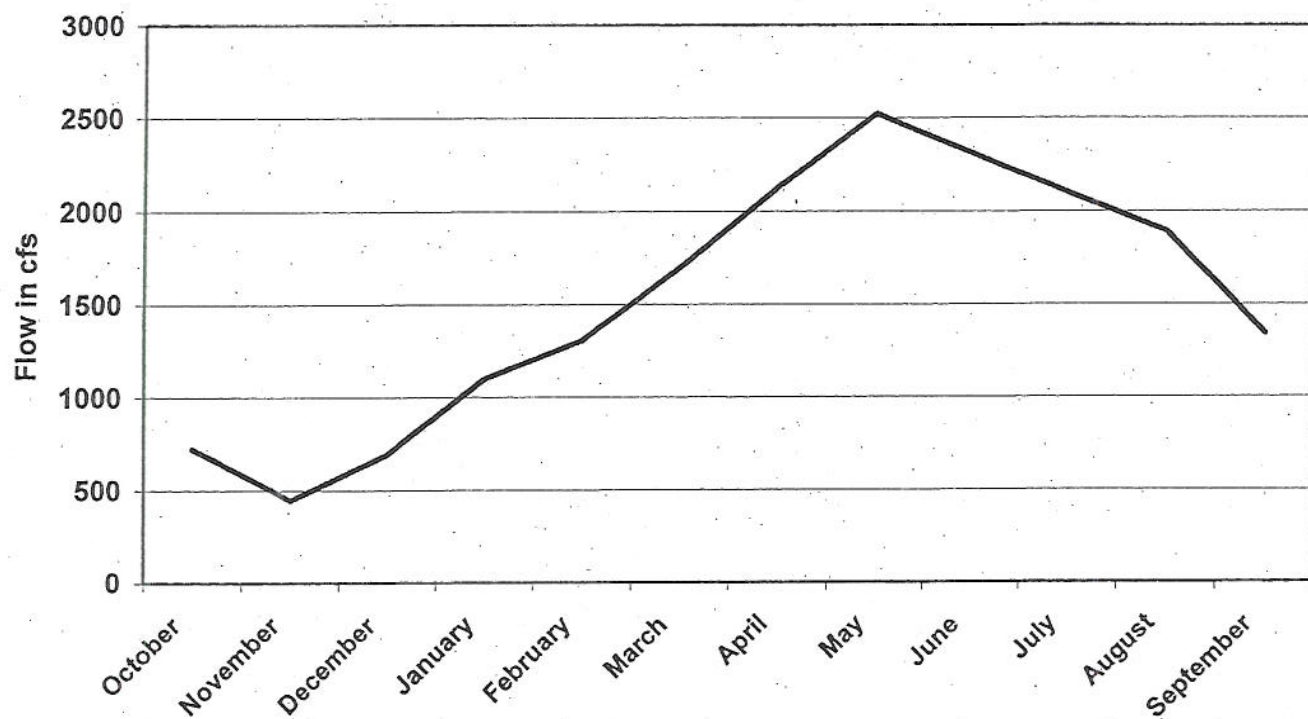
#### NECESSARY CONSTRUCTION

The new facilities to be constructed include a building to house the new generator that would be located adjacent to the existing generators. A limited amount of ground disturbance will be necessary for the placement of this facility. The new generation equipment will be integrated into this building. The unit would discharge into Goodwin Reservoir, as do the existing power producing units at Tulloch, as well as the existing low level bypass valves. The existing transformer and switchyard will be modified for the placement of a transformer and switch for connection to the existing 115 kilovolt ampere electrical grid.

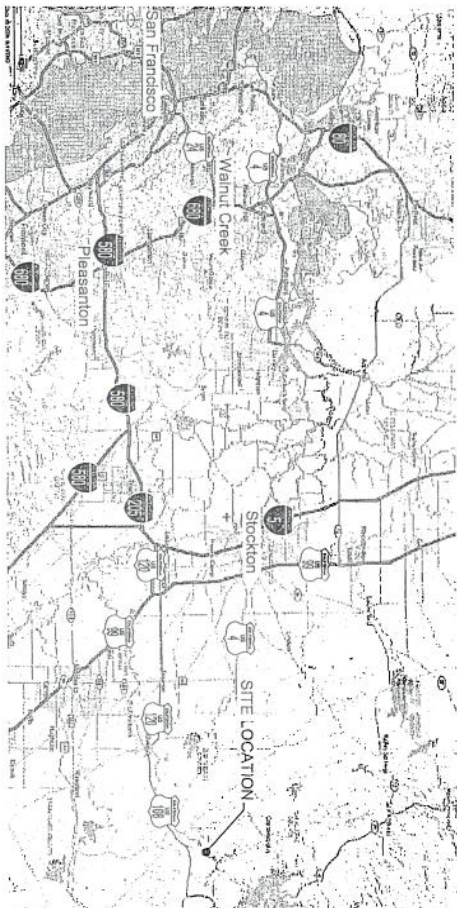
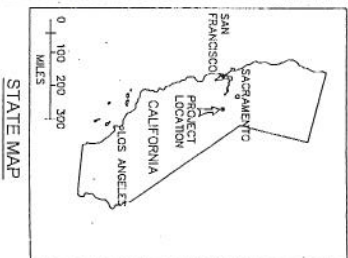
The construction of the new facility has begun will be accomplished by early spring of 2011. This past non-irrigation season (November 2008-February 2009), the access road was completed. These include (1) the construction of roads for access to the site across the existing spillway by placement of concrete to level portions of the spillway and grading the remaining portions, (2) excavation of material adjoining the existing generators to connect a penstock to the existing low level outlet. The remaining access road, parking area, generator building and electrical/ mechanical facilities will be constructed beginning this summer. New transformer and switch gear will be installed to accommodate the new generator.

A schematic of the additional powerplant is attached hereto.

Figure 3.8-1. Mean Monthly Total Flows Through Tulloch Project, 1974-1999.







LOCATION MAP

REV	DATE	BY	DESCRIPTION	SCALE	WARNING	DESIGNED	PROJECT ENGINEER'S NAME	LICENSE NO.	DATE
1	12/20/08	MMH	PHASE II G&C DRAFT SUBMITTAL	AS SHOWN	0 1/2	MMH			
0	02/20/08	MMH	G&C DESIGN SUBMITTAL			MMH			



TRIBAL PROJECT  
OKOALE AND SAN JOAQUIN  
IRRIGATION DISTRICTS

TULLOCH HYDROELECTRIC PROJECT - 3RD UNIT ADDITION  
PROJECT LOCATION MAPS  
AND DRAWING INDEX

Project No.  
1881528  
Drawing No.  
G-1  
Sheet No.  
of

# TULLOCH HYDROELECTRIC PROJECT

## 3RD UNIT ADDITION

### PHASE 2 CONSTRUCTION

#### DRAWING INDEX

##### GENERAL DRAWINGS

- G-1 PROJECT LOCATION MAPS & DRAWING INDEX
- G-2 PROJECT SITE PLAN
- G-3 STANDARD ABBREVIATIONS

##### CIVIL STANDARD DETAILS

- GC-1 CIVIL STANDARD DETAILS - 1
- GC-2 CIVIL STANDARD DETAILS - 2
- GC-3 CIVIL STANDARD DETAILS - 3 TYPICAL MISE WALL DETAILS
- GC-4 CIVIL STANDARD DETAILS - 4 TYPICAL MISE WALL, TRAPED BARRIE DETAILS
- GC-5 CIVIL STANDARD DETAILS - 5 TYPICAL MISE WALL DETAILS
- GC-6 CIVIL STANDARD DETAILS - 6 ROCK ANCHOR DETAIL

##### STRUCTURAL GENERAL NOTES

- GS-1 STRUCTURAL STANDARD DETAILS - 1
- GS-2 STRUCTURAL STANDARD DETAILS - 2
- GS-3 STRUCTURAL STANDARD DETAILS - 3

##### MECHANICAL SYMBOLS AND ABBREVIATIONS

- GM-1 STANDARD MECHANICAL DETAILS SHEET 1
- GM-2 STANDARD MECHANICAL DETAILS SHEET 2
- GM-3 STANDARD MECHANICAL DETAILS SHEET 3
- GM-4 STANDARD MECHANICAL DETAILS SHEET 4
- GM-5 STANDARD MECHANICAL DETAILS SHEET 5
- GM-6 STANDARD MECHANICAL DETAILS SHEET 6
- GM-7 STANDARD MECHANICAL DETAILS SHEET 7
- GM-8 STANDARD MECHANICAL DETAILS SHEET 8

##### SITE WORKS DRAWINGS

- 1C-1 ACCESS ROAD - PLAN AND PROFILE
- 1C-2 ACCESS ROAD - SECTIONS 1
- 1C-3 ACCESS ROAD - SECTIONS 2
- 1C-4 ACCESS ROAD - SECTIONS 3
- 1C-5 PARKING AREA - PLAN AND SECTIONS
- 1C-6 DRAINAGE PROFILE
- 1C-7 CURVE TABLE AND COORDINATE TABLE
- 1C-8 MISE WALL - PLAN AND PROFILE
- 1C-9 MISE WALL - PANELS AND DETAILS

##### VALVE HOUSE AND PENSTOCK DRAWINGS

- 2C-1 EXISTING VALVE STRUCTURE DEMOLITION
- 2C-2 EXISTING VALVE STRUCTURE SECTIONS
- 2C-3 VALVE STRUCTURE AND PENSTOCK PLAN AND SECTIONS
- 2C-4 VALVE STRUCTURE AND PENSTOCK SECTIONS
- 2C-5 EXISTING VALVE STRUCTURE DEMOLITION AND MODIFICATIONS
- 2C-6 SEQUENCE

##### EXISTING VALVE STRUCTURE PLANS, ROOF AND FLOOR PLANS

- 2S-1 EXISTING VALVE STRUCTURE PLANS, ROOF AND FLOOR PLANS
- 2S-2 VALVE STRUCTURE SECTIONS AND DETAILS
- 2S-3 VALVE STRUCTURE AND PENSTOCK SECTIONS

##### VALVE HOUSE - PENSTOCK PLANS AND PROFILES

- 2M-1 VALVE HOUSE - PENSTOCK PLANS AND PROFILES
- 2M-2 VALVE HOUSE - PENSTOCK DETAILS
- 2M-3 VALVE HOUSE - OUTLET VALVE DETAILS

##### VALVE HOUSE - OUTLET VALVE RELOCATION

##### POWERHOUSE DRAWINGS

- 3C-1 POWERHOUSE EXCAVATION PLAN AND SECTION
- 3C-2 POWERHOUSE EXCAVATION SECTIONS - 1
- 3C-3 POWERHOUSE EXCAVATION SECTIONS - 2
- 3C-4 POWERHOUSE EXCAVATION SECTIONS - 3
- 3C-5 POWERHOUSE EXCAVATION SECTIONS - 4
- 3C-6 ROCK WALL REINFORCEMENT - ROCK ANCHORS AND REBAR DETAILS
- 3C-7 GROUT HOLES, REBARS AND ROCK ANCHORS SECTIONS AND DETAILS
- 3C-8 POWERHOUSE EXCAVATION CONSTRUCTION SEQUENCE

##### POWERHOUSE DRAWINGS (CONTINUED)

- 3G-1 POWERHOUSE SITE PLAN
- 3G-2 POWERHOUSE GENERAL ARRANGEMENT TURBINE FLOOR PLAN
- 3G-3 POWERHOUSE GENERAL ARRANGEMENT GENERATOR FLOOR PLAN
- 3G-4 POWERHOUSE GENERAL ARRANGEMENT UPPER FLOOR PLAN
- 3G-5 POWERHOUSE GENERAL ARRANGEMENT ROOF PLAN
- 3G-6 POWERHOUSE GENERAL ARRANGEMENT SECTIONS SHEET 1
- 3G-7 POWERHOUSE GENERAL ARRANGEMENT SECTIONS SHEET 2
- 3G-8 POWERHOUSE GENERAL ARRANGEMENT ELEVATION - SHEET 1
- 3G-9 POWERHOUSE GENERAL ARRANGEMENT ELEVATION - SHEET 2

##### POWERHOUSE STRUCTURAL FOUNDATION PLAN

- 3S-1 POWERHOUSE STRUCTURAL FOUNDATION PLAN
- 3S-2 POWERHOUSE STRUCTURAL UPPER FLOOR PLAN
- 3S-3 POWERHOUSE STRUCTURAL ROOF PLAN
- 3S-4 POWERHOUSE STRUCTURAL SECTION - SHEET 1
- 3S-5 POWERHOUSE STRUCTURAL SECTION - SHEET 2
- 3S-6 POWERHOUSE STRUCTURAL SECTION - SHEET 3
- 3S-7 POWERHOUSE STRUCTURAL SECTION - SHEET 4
- 3S-8 POWERHOUSE STRUCTURAL SECTION - SHEET 5
- 3S-9 POWERHOUSE STRUCTURAL SECTION - SHEET 6
- 3S-10 POWERHOUSE STRUCTURAL SECTION - SHEET 7
- 3S-11 POWERHOUSE STRUCTURAL SECTION - SHEET 8
- 3S-12 DRAFT TUBE GATE DETAILS - SHEET 1
- 3S-13 DRAFT TUBE GATE DETAILS - SHEET 2
- 3S-14 POWERHOUSE REMOVABLE HATCH - SHEET 1
- 3S-15 POWERHOUSE REMOVABLE HATCH - SHEET 2

##### POWERHOUSE MECHANICAL DETAILS

- 3M-1 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-2 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-3 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-4 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-5 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-6 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-7 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
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- 3M-9 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-10 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-11 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-12 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-13 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-14 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05
- 3M-15 POWERHOUSE MECHANICAL DETAILS - TURBINE FLOOR EL. 355.05

90% DRAFT SUBMITTAL  
NOT FOR CONSTRUCTION

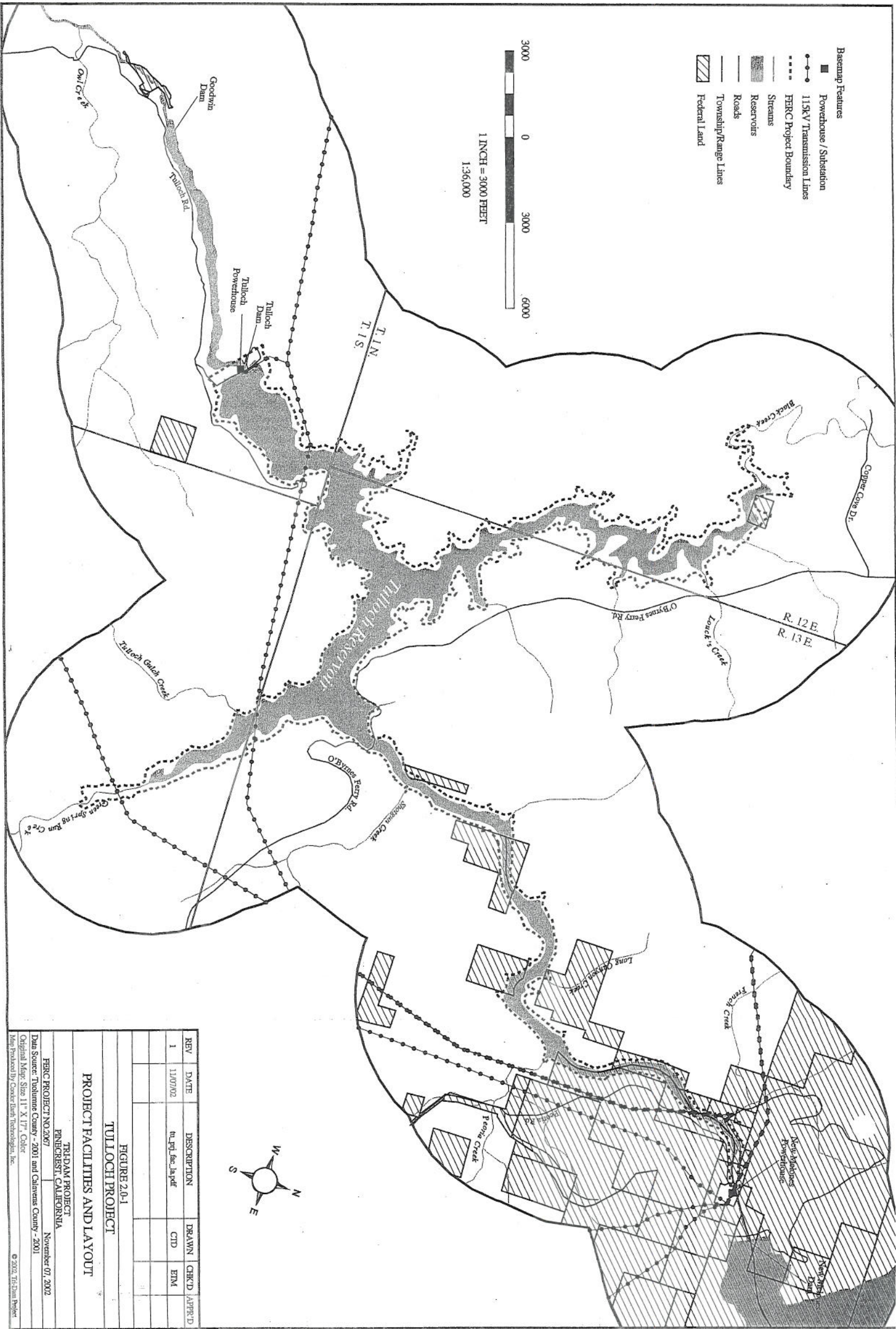






DATE: 11/11/1983

# ATTACHMENT 3



REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
1	11/07/02	tu_pj_fac.la.pdf	CTD	ETM	

PROJECT FACILITIES AND LAYOUT

TULLOCH PROJECT

FIGURE 2.0-1

TULDAH PROJECT  
PINECREST, CALIFORNIA  
FERC PROJECT NO. 2067  
Data Source: Tuolumne County - 2001 and Calaveras County - 2001  
Original Map Size 11" X 17", Color  
Map Produced by Carter Earth Technologies, Inc.



WALTON RESOURCES  
COURT REPORT

2009 APR 30 AM 11:05

DR. J. WALTON JR. TS  
SACRAMENTO

**ATTACHMENT 4**



County of Tuolumne  
Department of Public Works

PETER REI, R.C.E., P.L.S.  
Director of Public Works

A.N. Francisco Building  
48 West Yaney Avenue  
Mailing: 2 South Green Street  
Sonora, CA 95370

Engineering Division  
(209) 533-5601  
Road Operations Division  
(209) 533-5601  
Transportation Division  
(209) 533-5603  
County Surveyor Division  
(209) 533-5626  
Solid Waste Division  
(209) 533-5588  
Fax (209) 533-5698

ENCROACHMENT PERMIT

PERMIT NO. PWE2009-00003  
DATE ISSUED:  
TO: Tri-Dam Tulloch Powerhouse Project  
PO Box 1158  
Pinecrest, CA 95364

RECEIVED

JAN 23 2009

BY: CEY

In compliance with your request of January 19, 2009, and subject to all the terms and conditions written below and those contained in Tuolumne County Ordinance No. 263, and Division 2, Chapters 5.5 and 6 of the California Streets and Highways Code, and any applicable State Laws,

PERMISSION IS HEREBY GRANTED TO: Perform improvements within the Tuolumne County road right of way and to enhance the existing Dam access driveway in conjunction with the temporary construction activities associated with the Powerhouse improvements. APN: 63-100-07 Location: Tulloch Dam Road at the entrance to the Dam / Hydroelectric Plant

This encroachment also will allow any signage, brush removal, stripping or shoulder improvements.

The permittee which, with their, his or her, own Employees or Equipment performs any excavation must call the Regional Notification Center (USA North 1-800-642-2444) two (2) to fourteen (14) days in advance of excavating as set forth in Sections 4216 et seq. of the Government Code.

This permit to accomplish work which requires excavation as set forth in section 4216.9 et seq. of the Government Code shall be valid only if the applicant has been provided an initial inquiry identification number by a regional notification center pursuant to Section 4216.2.

Every precaution is to be taken to protect the safety and convenience of the traveling public at all times and the road shall remain open during all phases of the work.

The Department of Public Works shall be given two (2) days notice prior to the start of work at (209) 533-6533.

SPECIAL ATTENTION is directed to the Rules for Encroachment Permits (see attached).

This permit shall be strictly construed to authorize no work or encroachment other than that specifically mentioned above. This permit shall be void unless the work herein contemplated shall have been completed and approved before the expiration date above.

Field Inspected by: Daniel Brown

DEPARTMENT OF PUBLIC WORKS

Richard S. York  
Richard S. York, R.C.E.  
Deputy Director, Public Works

Date: 1-23-09

ACCEPTED BY:

Owner/Agent  
Date: \_\_\_\_\_

Enclosures

RSY/em





## County of Tuolumne Department of Public Works

Peter Rei, R.C.E., P.L.S.  
Director of Public Works

A. N. Francisco Building  
48 West Yancy Avenue  
Mailing: 2 South Green Street  
Sonora, California 95370

Engineering and Road Operations Divisions  
(209) 533-5601  
Transportation Division  
(209) 533-5603  
County Surveyor Division  
(209) 533-5626  
Solid Waste Division  
(209) 533-5588  
Fax (209) 533-5698

### NOTICE TO OWNER/CONTRACTOR AND ENCROACHMENT PERMIT HOLDER

Contractors and/or Encroachment Permit Holders whose work requires inspection and testing by County of Tuolumne Community Development Department Inspectors must give the Community Development Department at least two working days of notice. This requirement is necessary so the inspection can be properly scheduled.

Please call the 24 hour Inspection Request Line at (209) 533-6533.

The information to be provided is:

1. Callers name
2. Project name
3. Project address
4. Type of inspection or tests requested
5. Call back number to confirm scheduling of inspection.

The standards for construction set forth in this permit are intended to provide a driveway or other facility which protects the safety of the owner, traveling public and road maintenance personnel and equipment. Failure to construct the driveway or other facility in accordance with this permit may result in the owners' liability for damages caused by improper construction.

If you have any questions, please call 533-5633.

Richard S. York, R.C.E.  
Deputy Director of Public Works

**COUNTY OF TUOLUMNE**  
**MINIMUM STANDARDS FOR ENCROACHMENT PERMITS FOR PRIVATE DRIVEWAY APPROACHES**

This type of approach is required for private drives which do not serve commercial, industrial or multi-family residential development. You must apply for a permit whenever you are building or improving a driveway entrance, or if you apply for a building permit.

When the Community Development Department receives your application, one of the following determinations will be made:

1. An encroachment permit may not be required because your construction does not affect a county road or because a permit has already been issued. If a permit has been issued, you will be required to complete all improvements required thereon and/or a needed maintenance on the encroachment. If you believe that you do not need to apply for an encroachment permit for either these reasons, you may check with the Community Development Department before you apply for your building permit.
2. The permit may be issued subject to typical construction requirements and conditions. Standard typical plans appropriate for your project will accompany your encroachment permit.
3. An engineered encroachment plan may be required if your site does not meet the standard criteria for sight distance, sloped or because of other problems which cannot be alleviated using the County's typical plans. You will be notified if you must submit additional information.

It is the owner's responsibility to comply with such provisions and conditions. The encroachment is not maintained in a safe condition, the permit may be revoked and the encroachment removed at the owner's expense.

All encroachments shall comply with the following standards unless, because of problems peculiar to the site, they cannot be met, which case an alternate plan for a safe encroachment, specific to the site, shall be designed by an engineer.

**SIGHT DISTANCE-** Stopping sight distance is measured from the driver's eyes, which are assumed to be 3.5 feet above the pavement surface, to an object 0.5 foot high on the road.

Speed limit up to	25	30	35	40	45	50	55	MPH
Sight distance minimum	150	200	250	300	360	430	500	Feet*
*20% increase	180	240	300	360	432	516	600	

\*Increase by 20% on sustained downgrade greater than 3%

**ANGLE OF INTERSECTION** should be as close to 90 degrees as possible. Maximum limits are 60 to 120 degrees.

**WIDTH OF ENCROACHMENT - 12' TO 24'**

**STRUCTURAL SECTION AND SURFACE MATERIAL** shall consist of at least 4" of compacted class 2 aggregate base rock and 2" of type B, 1/2 maximum Asphalt Concrete. Where required, the paving shall extend to the edge of the right-of-way or 20' beyond the edge of roadway, whichever is further. Concrete is prohibited within 5' of the edge of roadway, unless the Department has given prior approval. Please request the use of concrete when applying for your permit.

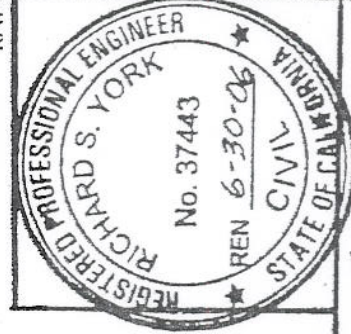
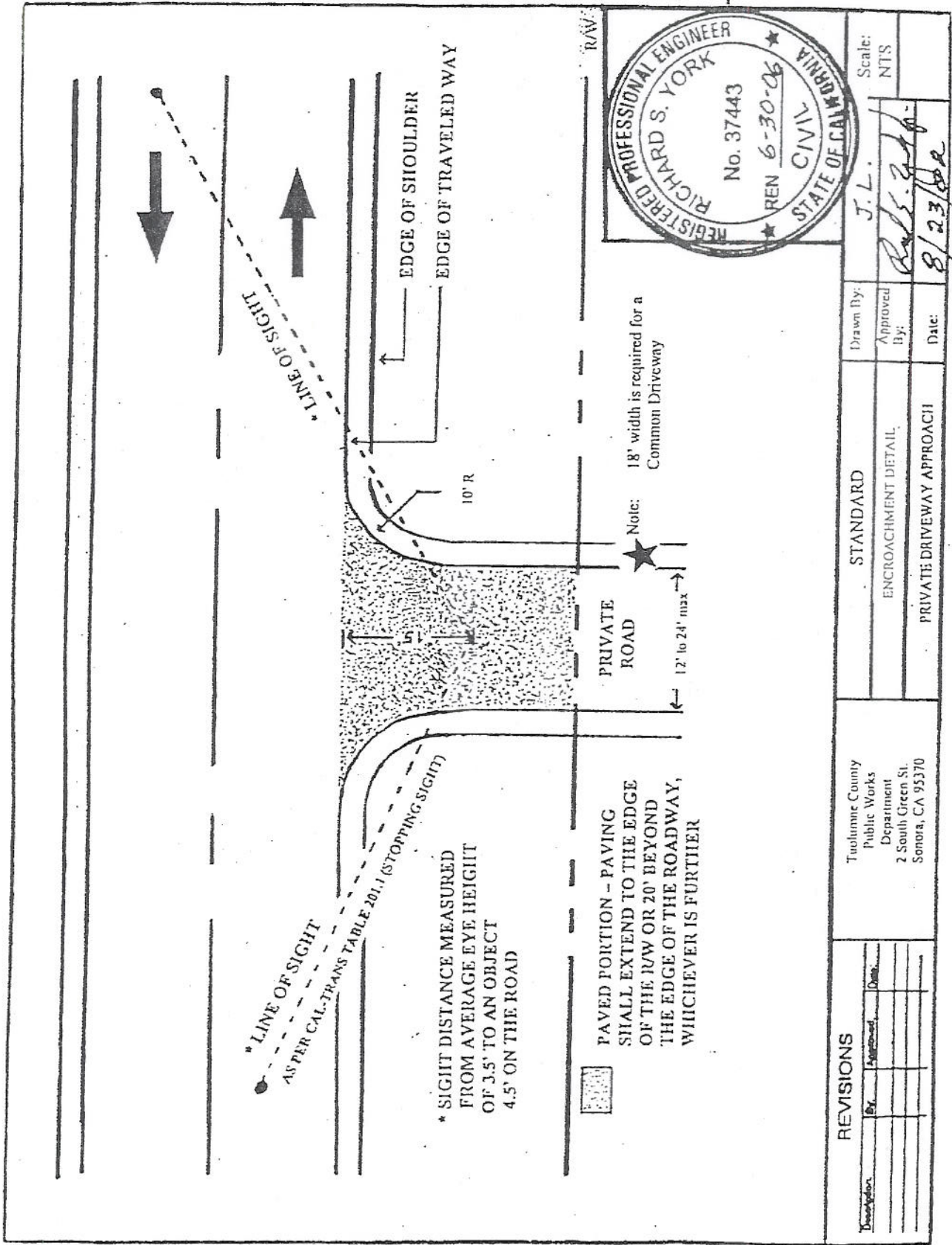
**DRAINAGE-** proper drainage facilities, as shown in the typical encroachment detail attached to your permit, shall be sized to handle flow and convey water away from the County road.

County inspectors have the authority to modify these standards as appropriate to the site. Their instructions shall prevail over these guidelines.

For further information, please contact:

Community Development Department  
2 South Green Street, Sonoma, CA 95370  
(209) 533-5633





Scale: NTS

Drawn By: J.L.  
 Approved By: *R.S. York*  
 Date: 8/23/02

STANDARD

ENCROACHMENT DETAIL

PRIVATE DRIVEWAY APPROACH

Tuolumne County  
 Public Works  
 Department  
 2 South Green St.  
 Sonoma, CA 95370

REVISIONS

Description	By	Approved	Date

Tuolumne County  
Community Development Depart  
Receipt

COPY

From: Tri-Dam Tulloch Powerhouse  
Agent: DIEDE CONST.

Receipt #: 2009000086  
Receipt Date: 01/20/2009

Address:

Comment: Improvements PWE2009-00003 File # 1916

Description	Base Fee	Qty	Amt Per Qty	Pay Mth	Line Total
EncroachmentPermit residential Permit # PWE2009-00003	3.00			CA	\$3.00
EncroachmentPermit residential Permit # PWE2009-00003	250.00			CHK	\$250.00

RECEIVED

JAN 23 2009

BY: CEY

Total for: 2009000086

\$253.00



# **ATTACHMENT 5**

APPLICATION TO APPROPRIATE WATER  
Oakdale and South San Joaquin Irrigation Districts  
Diversion of an Additional 700 cfs at Tulloch Dam for Power Production

**ATTACHMENT NO. 5**  
**(Permits and Approvals)**

A. The following federal and state permits and approvals have already been acquired:

1. Federal Energy Regulatory Commission

- FERC License
- FERC Authorization to construct Phase I

2. United States Army Corps of Engineers

- Approval under Nationwide Permit No. 39 for Phase 1 construction

3. California State Water Resources Control Board

- 401 Water Quality Certification
- Approval of Water Quality Plan for Phase 1 construction
- Storm Water Pollution Prevention Plan for Phase 1 construction
- Notice of Intent to comply with the terms of General Permit for Storm Water Discharges Associated with Construction Activity.

B. The following federal and state permits and approvals still need to be acquired:

1. Federal Energy Regulatory Commission

- FERC authorization to construct Phase II

2. United States Army Corps of Engineers

- Approval under Nationwide Permit No. 39 for Phase 1 construction

3. California State Water Resources Control Board

- Approval of Water Quality Plan for Phase II construction
- Storm Water Pollution Prevention Plan for Phase II construction

4. California Department of Fish and Game

- Section 1602 Lake and Streambed Alteration permit



5. Department of Water Resources, Division of Safety of Dams

- Plan approval

C. Agency Contacts

1. Federal Energy Regulatory Commission

- Mr. Stan Chew. 415-369-3394.

2. United States Army Corps of Engineers

- Ms. Kath Norton. 916-557-5260. [kathy.norton@usace.army.mil](mailto:kathy.norton@usace.army.mil)

3. California State Water Resources Control Board

- Mr. Russ Kranz. 916-341-5341. [kranz@waterboards.ca.gov](mailto:kranz@waterboards.ca.gov)

4. California Department of Fish and Game

- Ms. Julie Means. 559-243-4014. [jmeans@dfg.ca.gov](mailto:jmeans@dfg.ca.gov)

5. Department of Water Resources, Division of Safety of Dams

- Mr. Dean Smith. 916-227-4623.
- Mr. Mutaz Mihyar. 916-227-4636

# **ATTACHMENT 6**



APPLICATION TO APPROPRIATE WATER  
Oakdale and South San Joaquin Irrigation Districts  
Diversion of an Additional 700 cfs at Tulloch Dam for Power Production

**ATTACHMENT NO. 6**  
**(Erosion)**

The new 7,000 kW turbine/generator would be constructed adjacent to the existing powerhouse, which was built in the 1950s. The new turbine/generator will not be located on a geologic unit or soil that is unstable or on expansive soil. The potential for soil erosion related to project operations is considered less than significant.

That said, as part of the FERC License Application, concern was expressed that shoreline erosion at Tulloch Reservoir, due to changes in water levels, could possibly affect water quality. While this concern was not directly related to the proposal to increase generation by the additional 7,000 kW, Tri Dam Project agreed to conduct erosion monitoring to avoid or mitigate for any potentially significant environmental impacts associated with erosion of the shoreline. Specifically, Tri Dam Project agreed to monitor shoreline erosion once every five (5) years, and to file a report with FERC, after consultation with the California Department of Fish and Game, State Water Resources Control Board, and Tulloch Reservoir Management Group (if formed) within 6 months after the monitoring is finished. The report shall compare the results of the current monitoring with that of any past monitoring, identify any substantial changes, recommend corrective actions, propose a schedule for implementation and evidence of consultation. It is expected that these actions will address any erosion of the Lake Tulloch shoreline, whether such erosion be caused by the proposed project or other factors.

This requirement is also identified as a specific mitigation measure (#4.6.2) in the September 2004 Mitigated Negative Declaration and Initial Study done for the project.

Further, as noted earlier, Tri Dam Project has obtained permits from the U.S. Army Corps of Engineers and State Water Resources Control Board which address and mitigate for potential erosion and discharge of sediment during the Phase 1 construction. Additional permits will be sought for the construction of Phase II.

# **ATTACHMENT 7**



APPLICATION TO APPROPRIATE WATER  
Oakdale and South San Joaquin Irrigation Districts  
Diversion of an Additional 700 cfs at Tulloch Dam for Power Production

**ATTACHMENT NO. 7**  
**(Archaeology)**

No cultural sites occur in the area of the new turbine/generator facility. The project will not cause an adverse change in the significance of any historical or archaeological resources, destroy any unique paleontological or geologic resources or features, or disturb any human remains.

During the preparation of the FERC License Application, extensive cultural resource studies were conducted. Those studies concluded that there are three historic sites formally determined eligible for the National Register of Historic Places (NHRP) as contributing elements of a district. Two of the 26 other recorded historic resources are considered potentially eligible for NHRP under Criterion D, with 24 sites lacking further research value. One of the eight prehistoric sites in the general project area is considered potentially eligible for NHRP based on surface observations. The other seven sites are considered potentially eligible for their research value should they contain subsurface cultural deposits. All of these sites occur on privately owned land, and none are affected by reservoir water level changes. Continuation of normal operation and maintenance of Tulloch Dam and related facilities will not affect any of these sites.

Oakdale and South San Joaquin Irrigation Districts consulted with affected Native American Tribes during the re-licensing effort, and none of the tribes identified any concerns including the continued traditional use of culturally sensitive plants in the general project area.

Nonetheless, Oakdale and South San Joaquin Irrigation Districts agreed to develop and implement a cultural resources plan to insure that no aspect of current or future operation of Tulloch Dam and related facilities, including the new power generation contemplated herein, will impact any culturally sensitive sites or resources. This plan, which was filed with FERC on July 23, 2004 after review by the State Historic Preservation Officer, the U.S. Bureau of Land Management and potentially affected Native American Tribes, is also identified as a specific mitigation measure (#4.5.2) in the September 2004 Mitigated Negative Declaration and Initial Study done for the project.

Recently, a comprehensive cultural resources study was completed by Mr. Roger Werner or Archaeological Services Incorporated. The potential sites are being documented in report form and will be verified by field surveys. These areas will be avoided to ensure that no impact occurs to any historic and/or pre-historic resources.

# ATTACHMENT 8



